Amendments to the Drawings:

The attached eleven (11) sheets of formal drawings replace the informal drawings filed with the application. No new matter has been added.

Attachment: Eleven (11) Replacement Sheets

REMARKS/ARGUMENTS

The office action of June 2, 2005 has been carefully reviewed and these remarks are responsive thereto. Claims 1-29 are pending and stand rejected. Applicant herein amends claims 1-14 and 17-29, cancels claims 15 and 16, and adds new claims 30-43. No new matter has been added. Reconsideration and allowance of the instant application are respectfully requested.

The Drawings

The office action required new corrected drawings. Applicant herein submits formal drawings to replace the informal drawings filed with the application. Applicant also amends specification paragraph [0057] (published under No. 20020138795 as paragraphs [0062] through [0064]) so as to refer to Fig. 13 and to replacement signal 275. No new matter has been added.

The Claims

At the outset, Applicant notes that several amendments have been made to the claims solely for purposes of enhancing readability. For example, Applicant has added letter or number references for sub-portions of certain claims. These references are for convenience and do not imply a temporal relationship not otherwise required by the language of the claims. Applicant has also substituted "said" with "the" in various claims. No substantive difference is intended by such substitution.

Claim Objections

The office action objected to the phrase "at least one" in claims 1 and 20. Applicant has pluralized "interval" as recommended by the examiner, and has made other amendments to claims 1 and 20 for consistency.

The office action also rejected claims 3-9, 12, 14-16 and 19 for lack of antecedent basis with regard to various claim language. Applicant has obviated these objections by making appropriate amendments or by canceling the claims at issue.

Applicant has also amended claim 6 to correct a typographic error (changing "value" to "vector").

Claim Rejections

The office action rejected claim 12 as indefinite under 35 U.S.C. § 112, second paragraph. The office action also rejected claims 13-19, which depend on claim 12, on the same basis. Applicant herein amends claim 12 to recite, e.g., replacing transform coefficients of the defective transient intervals with transform coefficients from received transient intervals not identified as defective. Applicant believes that this cures the § 112 rejections.

The office action rejected claims 1-11 and 20 under 35 U.S.C. § 102(b) based on U.S. patent 5,394,473 (Davidson). However, claim 1 recites a step of embedding ancillary data into encoded audio data intervals preceding the encoded transient audio data intervals, the ancillary data providing notification that the encoded transient audio data intervals include the short transient signals. (Emphasis added.) Applicant has not found in Davidson any teaching that ancillary information providing notification of a transient is embedded in an encoded audio data interval preceding an encoded audio data interval that includes that transient. The portion cited by the office action (col. 11, lines 33-48) refers to selection of block lengths, but is silent regarding whether any ancillary information regarding block length is embedded in an interval that precedes the interval to which any such ancillary data would apply. Another portion of Davidson (col. 32, line 39 to col. 33, line 14) refers to use of table indices to represent a sequence of subblock lengths. However, that passage does not indicate that such an index would be embedded into one encoded audio data interval and refer to a following encoded audio data interval.

Accordingly, claim 1 is allowable over Davidson. Claims 2-11 depend from claim 1, and are thus allowable for the same reason as claim 1. Newly added claims 30 and 31 also depend from claim 1 and are thus allowable for the same reason as claim 1, as well as because of additional features recited in those claims. For example, claim 30 recites analyzing the frequency domain transform coefficients of a sequence of encoded audio data intervals to identify encoded transient audio data intervals. Davidson does not teach this feature. Instead, Davidson teaches detection of transients in the time domain, i.e., prior to transform encoding to the frequency domain. As shown by Davidson Fig. 1a (reproduced below), transient detector 110 receives output from buffer 108 and provides input to frame control 114 and to formatter 120.

FIG_1a.
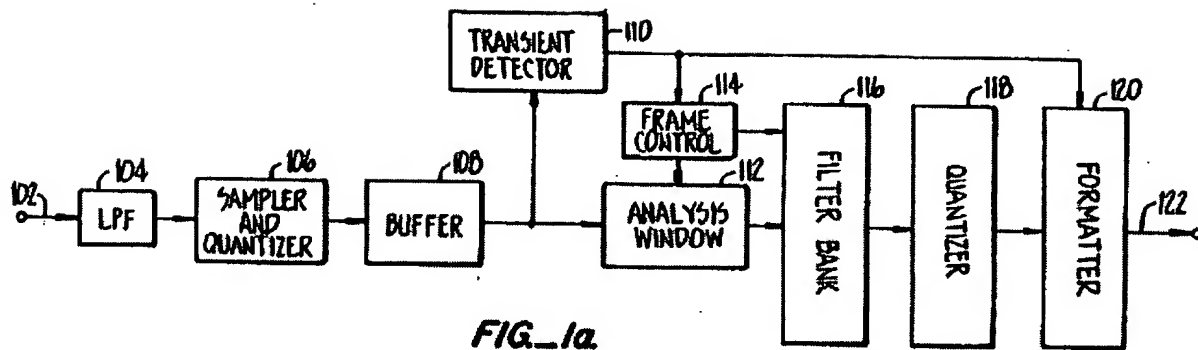
Davidson makes clear that the input to the analysis window 112 (and thus to transient detector 110) is a time domain signal, and that frequency domain transform coefficients are created in filter bank 116. See col. 15, lines 46-50 ("...analysis window 112 which weights each digitized time-domain signal block by an analysis-window function, digital filter bank 116 which transforms the sampled and quantized signal into frequency coefficients..."). Claim 31 recites that the ancillary data in each of the preceding encoded audio data intervals is distinct from data identifying a sampling window applicable to the encoded audio data transient interval for which that ancillary data provides notification. Davidson also fails to teach this feature.

Claim 20 has been amended to recite a transient detector for identifying, by analysis of frequency domain transfer coefficients of the coded audio data intervals, at least one of the coded audio data intervals corresponding to an audio data interval having a short transient signal. Similar to new claim 30, Davidson fails to teach analysis of frequency domain transfer coefficients to identify coded audio data intervals corresponding to an audio data interval having a short transient signal. Accordingly, claim 20 is also allowable over Davidson.

The office action rejected claims 12-18, 21 and 22 under 35 U.S.C. § 102(e) based on U.S. patent 6,597,961 (Cooke). Claim 12 has been amended to recite, e.g., replacing transform coefficients of defective transient intervals with transform coefficients from received transient intervals not identified as defective. Cooke does not teach this feature. Instead, and as noted by the office action, Cooke teaches replacement of erroneous or missing frames with "synthetic" frames. However, these synthetic frames are generated by interpolation from other frames. See, e.g., Cooke Fig. 9 (blocks 906, 916 and 918). Stated differently, Cooke does not teach simply

replacing transform coefficients for a corrupted, missing or otherwise defective interval with transform coefficients from a received interval that is not defective.

Because Cooke fails to teach a feature of claim 12, claim 12 is allowable over Cooke. Claims 13, 14 and 17-19 depend from Cooke, and are therefore allowable for at least the same reason as claim 12. Newly added claims 32-36 also depend from claim 12 and are thus allowable for the same reason as claim 12, as well as because of additional features recited in those claims.

Claim 21 has been amended to recite an error concealment unit configured to perform a step that includes providing replacement transform coefficients for defective transient intervals, wherein the replacement transform coefficients are obtained from received transient intervals not identified as defective. Similar to claim 12, Cooke does not teach this feature, and claim 21 is also allowable over Cooke. Claim 22 depends from claim 21 and is allowable for the same reason as claim 21. Newly added claims 37-43 also depend from claim 21 and are thus allowable for the same reason as claim 12, as well as because of additional features recited in those claims.

The office action rejected claims 23, 24, 28 and 29 under 35 U.S.C. § 103 based on Cooke in view of Davidson. The office action rejected claims 25-27 under 35 U.S.C. § 102 based on Cooke in view of Davidson and U.S. patent 6,477,150 (Maggenti et al.). Claim 23 as amended recites a transient detector for classifying, by analysis of frequency domain transform coefficients, coded audio data intervals that have a short transient signal. Similar to claim 1, Davidson does not teach analysis of frequency domain coefficients to classify an interval having a transient. Cooke does not supply this feature. Accordingly, claim 23 is allowable over Cooke in view of Davidson.

Claim 23 also recites an error concealment unit for replacing frequency domain transform coefficients of a defective transient audio data interval with frequency domain transform coefficients from a received transient audio data interval found to be error-free. Similar to claim 12, Cooke does not teach replacing coefficients of a defective interval with coefficients from a received non-defective interval. Davidson also fails to teach this feature. Accordingly, and for this additional reason, claim 23 is allowable over Cooke in view of Davidson.

Claims 24-29 depend from claim 23, and are thus allowable for the same reasons as claim 23. As to claims 25-27, Applicant further notes that Maggenti also fails to teach the above-mentioned features not found in Cooke or Davidson.
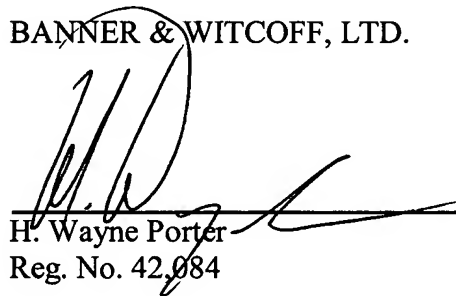
Conclusion

It is respectfully submitted that this application is in condition for allowance. Should the Examiner believe that anything further is desirable in order to place the application in even better form for allowance, the Examiner is respectfully urged to contact Applicants' undersigned representative at the below-listed number.

Respectfully submitted,

BANNER & WITCOFF, LTD.

Dated: September 30, 2005   By: _____
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